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Inside Wallops

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NASA Government Invention of the Year Selected

The Optical Fiber Cable Chemical Stripping Fixture invented by John Kolasinski and Alexander Coleman, from NASA's Goddard Space Flight Center has been selected as the winner of the NASA Government Invention of the Year for 2000.

The invention is used to remove coatings surrounding tiny, as small as 125 microns, optical fibers. Fiber coatings, such as acrylate and polyimide, surround the glass fibers similar to the way insulation covers a copper wire. The device prepares optical fibers for termination to a connector by controlling the removal of the coating. The fixture also provides control over the stripping length.

"Optical fibers are used for very fast communication links between electronic devices," said Kolasinski, a senior aerospace technology engineer at Goddard. "A major benefit of the fixture is that it increases reliability over mechanical techniques that nick fibers, saving time and money by reducing repair and replacements."



The fixture at work stripping the outer coating.

Coleman, a senior electronics technician in the Electrical Systems Branch at Wallops Flight Facility said traditional coating removal techniques are based on mechanical wire stripping techniques that may scratch or nick the very small glass fiber, resulting in a latent defect and a reliability issue.

"Using this fixture decreases the likelihood of optical fiber failures caused by nicks induced by mechanical stripping methods," added Coleman. "It could also benefit others by helping to reduce optical fiber failures in connectors used for systems such as those in the telephone or the Internet.

Anyone that builds fiber optic cables could use the device."

The fixture has been used successfully on a number of NASA projects including the X-Ray Timing Explorer (XTE), the Tropical Rainfall Measuring Mission, the Microwave Anisotropy Probe, Earth Observing-1 and the Hubble Space Telescope's solid state recorder.

Kolasinski is responsible for NASA-wide space flight fiber optic development efforts. His aerospace fiber optic experience spans nearly 10 years and eight flight projects. He holds two NASA patents for fiber optics fabrication devices, four pending patent applications and several new technology disclosures.

Coleman is currently working on the Ultra Long Duration Balloon Program and on new technology called Unmanned Video Sky Screening. Coleman holds two patents for fiber optics fabrication devices.

Both men developed the tool while working on XTE. "We were experiencing optical fiber failures in early space flight fiber optic systems that were caused by glass fiber nicks induced by mechanical stripping techniques," Kolasinski said.

"This device uses chemicals and a controlled fixture, so we do not have to worry about metal blades coming in contact with and nicking a small optical fiber." He added the tool will work with many different types of fiber systems and any operator terminating a specific connector can consistently strip the same length of fiber for that termination providing high reliability and a quality product.

"When I was officially notified I couldn't believe it," said Coleman. "I just about fell off my chair. I had to call John right away and let him know."

"I guess I still don't believe that Alex and myself are NASA government invention of the year winners," Kolasinski said. "There are very few people in the history of NASA to receive this award and I am extremely honored to be one of those."

The winners will be honored at the Invention of the Year Award ceremony scheduled for Friday, May 4, at 10 a.m. EDT, NASA Headquarters, 300 E. St. SW, Washington, DC.

Wallops Shorts.....

Fire Department News

The Wallops Fire Department responded to a house fire in the Navy family housing complex at 7 p.m. on April 3. The fire, which was caused by unattended cooking, resulted in fire damage to the kitchen as well as smoke throughout the home. All family members escaped without injury. Damage to the home was held to a minimum due to the quick actions of a neighbor with a fire extinguisher and timely response by the Wallops Fire Department.

Science Fair

Keith Koehler, Public Affairs Office, and Phil Eberspacher, Policy and Business Relations Office, served as judges for the Wicomico County Science Fair held April 4.

Earth Day Celebration

The Wallops' Environmental Office is sponsoring an Earth Day celebration 11 a.m. to 12:30 p.m., Tuesday, April 17 at the newly constructed picnic pavilion near the softball fields.

Attractions include:

- Alternatively fueled vehicles from area dealerships
- U. S. Coast Guard spill response exhibit
- U. S. Fish and Wildlife shore bird exhibit
- U. S. Navy exhibit on integrated pest management
- Birdhouses and bat boxes
- Marine Science Consortium aquariums and "touch tanks"



- Animals from the Salisbury Zoo
- Area school Earth Day grocery bag contest and display
- Earth Day T-shirts (while they last)
- Earth Day Cake

Come out and have lunch — WEMA will be grilling hot dogs for \$.75 and selling soda for \$.50. Free potato chips are being provided by Frito-Lay.

Rain, Rain go Away

by Bob Steiner, Meteorologist

Normally temperatures during March are a bit cool, but this year temperatures were even cooler than normal. The average temperature of 42 degrees was 2.5 degrees below normal. The high temperature for the month, 74 degrees, was recorded on March 13. No record high temperatures were set or tied.

A new record low for March 27 was set when the temperature fell to 24 degrees that morning. The old record low for March 27 was 26 degrees recorded in 1971. This also was the coldest temperature recorded for the month. Record low temperatures for the date were tied on March 26 (27 degrees) and on March 28 (24 degrees). No one needs to be reminded that there were 16 mornings when the temperature fell to 32 degrees or lower.

Had enough rain yet? We received 5.8 inches of precipitation which is 2.13 inches above the normal average for March. Measurable rain fell on 13 days, this is 4 more than is normal. The most rainfall, 2.8 inches, during a 24-hour period fell on March 20-21. This is almost half of the monthly total. Although, it could be seen floating around, no measurable snow fell during the month.



March winds were not very intimidating this year. Combined with below normal temperatures any wind at all made for uncomfortable conditions. The only major “Nor’Easter” occurred on March 21 and only produced a maximum wind gust of 44 mph.

May will be here before we know it and bring along some much nicer days. Generally the high temperatures start out in the upper 60s and are in the mid 70s by the end of the month. Lows near 50 degrees are to be expected at the beginning of the month and increase to around 60 degrees by the end of May. The all-time high for May is 97 degrees and was recorded on May 31, 1991. The record low of 34 degrees occurred on May 8, 1974. We can expect to see 10 days with measurable rain, with on average, a total of 3.24 inches of precipitation.

Thunderstorm activity also increases in May, which can produce large hail, strong, gusty winds and even tornadoes. As the weather becomes more pleasant, enjoy outside activities but be watchful for darkening skies and sudden wind gusts. Keep in mind that thunderstorms may occur at any time without warning. Late afternoon and early evening are prime times for thunderstorms.

If you are wetting a line or just cruising the Bay, keep an alert weather eye to the sky.



Reserved for mailing labels.

Take Our Daughters to Work® Day

The Federal Women’s Programs of NASA, Navy and NOAA will sponsor Take Our Daughters to Work® Day (TODTWD) on Thursday, April 26.

TODTWD was created to help girls gain inner-strength and confidence. Activities are planned to publicize, celebrate, preserve and reinforce natural strengths and optimism in areas of vital importance to young ladies.

TODTWD involves all the players that make a difference in a girl’s daily life. Encouraging adults to take their daughters or other young girls to work for the day brings attention to the importance of keeping girls healthy, strong, and confident through their teenage years on into adulthood. TODTWD focuses on abilities rather than physical appearances. A day watching women and men in the workplace helps heighten a young girl’s aspirations.

Programs like TODTWD are working! The positive benefits include boosting self-confidence and self-esteem, exposure to different opportunities in the business world and exposure to non-traditional careers.

Employees are encouraged to approach the day broadly - to focus positive attention on the girl’s abilities, urge them to speak their minds, and encourage them to trust their own judgment.

For more information, contact Lisa Johnson, x1412, or Marilyn Ailes, x2082, or see the Women of Wallops web site for a complete description of the event, including schedules and a downloadable registration form: <http://www.wff.nasa.gov/~FWP/news/todtwd2001/index.html>

Director’s All Hands Set

Goddard employees are invited to attend the next Director’s All Hands meeting scheduled for 1 p.m., Tuesday, April 17. This month’s meeting will begin a new series for all employees. Each bimonthly meeting will feature a presentation by one of Goddard’s directorates.

The presentations will focus on accomplishments, current work, challenges, and the future opportunities. The Flight Programs and Project Directorate (Code 400) and the Suborbital and Special Orbital Projects Directorate (Code 800) are presenters for April.

Wallops employees can view the presentations on Wallops Channel 6.

Summer Mentors Needed

This summer Wallops will be hosting up to nine local high school students through the National Space Club Scholars Program and the Summer High School Apprenticeship Program (SHARP). The SHARP students will be here for eight weeks beginning June 18 and the Space Club students for six weeks beginning June 25.

The selected students have expressed an interest in pursuing engineering, science or computer science as career fields. All of the students rank high academically and some even have experience in advance computer programming including C++.

If you would like to be a mentor to one of these students, contact Keith Koehler at X1579.

Employee coffee

It’s back! An employee morning coffee will be held from 8 to 9 a.m., April 12, in the cafeteria. The first half hour provides time for one-on-one discussions with senior management.

During the second half-hour, Arnold Torres, Director of Suborbital and Special Orbital Projects, will provide insight on the 2002 budget proposal and new initiatives.

All employees are invited

Exchange Store News

Busch Garden/Water County tickets have arrived and Kings Dominion tickets are on their way!

Busch Gardens

Adult (7 yrs and up) \$33.00
Child (3 - 6 yrs) \$27.00
3 Day/2-Park \$61.00

Water County

Adult (7 yrs and up) \$25.00
Child (3 - 6 yrs) \$18.50

Kings Dominion

Adult (7 years and up) \$31.50
Child (3 - 6 years) \$25.00

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